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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/802,411	03/09/2001	Dominik J. Schmidt		5439

21906 7590 04/18/2006

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EXAMINER	
PHU, SANH D	

ART UNIT	PAPER NUMBER
2618	

DATE MAILED: 04/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/802,411	SCHMIDT, DOMINIK J.	
	Examiner	Art Unit	
	Sanh D. Phu	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 February 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,7,9-12,16-21 and 23-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,7,9-12,16-21,23-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is responsive to the Amendment filed on 12/13/06. Accordingly, claims 1, 2, 7, 9-12, 16-21 and 23-27 are currently pending; and claims 3-6, 8, 13-15, 22, 28 and 29 are canceled.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 2, 7, 9-12 and 16-21, 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karaoguz et al (2002/0059434), previously cited, in view of Wong (6,441,442), previously cited.

-Regarding claim 1, see figures 2-4, and sections [0012], [0038] to [0049], Karaoguz et al discloses a system (see figure 3), which comprises:

an integrated circuit having an analog portion comprising:

a first radio core (68) which can be configured as a cellular radio core (see [0012]);

a radio sniffer (72, 68) of detecting and passing cellular radio signals being receiving by antenna (68);

a second radio core (70) which can be configured as a short-range wireless core (see [0012]);

an integrated circuit having a digital portion comprising:

a reconfigurable processor core (60, 62) coupled to the first radio core and the second radio core, the reconfigurable processor core configured to handle a plurality of wireless communication protocols;

a router (64) coupled to the reconfigurable processor core, the first radio core and the second radio core, the router is configured to transmit data packets in parallel via the first radio core and the second radio core in a time sharing fashion (see [0041-0043]).

Karaoguz et al does not disclose whether said integrated circuit having analog portion and said integrated circuit having digital portion are integrated on the same substrate.

Wong teaches that radio frequency devices and digital devices can be all on the same substrate using CMOS fabrication process (see ABSTRACT).

Therefore, for an application, it would have been obvious for a person skilled in the art, when building Karaoguz et al invention, to integrate said integrated circuit having analog portion and said integrated circuit having digital portion on the same substrate, as taught by Wong, so that the fabrication/manufacture cost of the system would be reduced (see Wong, col. 1, lines 47).

-Regarding claim 2, Karaoguz et al in view of Wong teaches that the system can conform with a Bluetooth protocol (see Karaoguz et al, [0012]).

-Regarding to claim 7, Karaoguz et al in view of Wong teaches that said processor core can be configured to plurals of processors, (see Karaoguz et al, (60, 62) of figure 3 or (134, 142, 136) of figure 6), (said plurals of processors being considered here equivalent to the claimed limitation "one or more reduced instruction set computer processors) (see Karaoguz et al, [0071]).

-Regarding to claim 9, Karaoguz et al in view of Wong teaches that the router comprises an engine (90) of tracking the destination of the data packets (see Karaoguz et al, figure 4, [0049]).

-Regarding to claim 10, as applied to claim 1, Karaoguz et al in view of Wong teaches that the router is capable to send data packets in parallel through a first channel (considered here equivalent with the limitation "primary communication channel") via the first radio core and a second channel (considered here equivalent with the limitation "secondary communication channel") via the second radio core in a time share fashion (see [0041-0043]), wherein the first channel can be configured as a short-range channel and the second channel can be configured as a cellular channel.

-Regarding to claim 11, as similarly applied to claims 1, 2, 7, 9 and 10, see figures 2-4, and sections [0012], [0038] to [0049], Karaoguz et al discloses a system, which comprises:

a processor ((64) of figure 3) or (92, 94) of figure 4);

a multimode wireless integrated circuit (60, 62, 68, 70) (see figure 3), coupled to the processor, the multimode wireless integrated circuit comprising:

an analog portion (68, 70) including:

a first radio core (68) which can be configured as a cellular radio core; and

a second radio core (70) which can be configured as a short-range wireless transceiver core;

a digital portion (60, 62) (see figure 3) including:

a reconfigurable processor core (134, 136, 142, 138, 140) (see figure 6) coupled to the first radio core and the second radio core including multiple programmable processors (142, 134, 136) and multiple dedicated processors (138, 140) configured to handle a plurality of wireless communication protocols (see [0071]); and

a memory device (84, 144) (see figures 4 and 6) (considered here equivalent with the limitation "memory array") coupled to the reconfigurable processor core;

a program storage device (82, 84) (see figure 4) coupled to said processor (80) (see [0047, 0048]); and

an input recognizer (82) embodied in said program storage device, said input recognizer configured to receive input from a user (see [0047, 0048]).

Karaoguz et al does not disclose whether said analog portion and said digital portion are integrated on the same substrate.

Wong teaches that radio frequency devices and digital devices can be all on the same substrate using CMOS fabrication process (see ABSTRACT).

Therefore, for an application, it would have been obvious for a person skilled in the art, when building Karaoguz et al invention, to integrate said analog portion and said digital portion on the same substrate, as taught by Wong, so that the fabrication/manufacture cost of the system would be reduced (see Wong, col. 1, lines 47).

-Claim 12 is rejected with similar reasons set forth for claim 2.

-Regarding to claim 16, Karaoguz et al teaches that the multiple programmable processors (142, 134, 136) include one or more digital signal processors (134, 136) (see figure 6).

-Regarding to claim 17, Karaoguz et al teaches that the multiple programmable processors include one or more processors (142, 134, 136) (see

figure 6), (considered here equivalent with the limitation "reduced instruction set computer processors") (see [0071]).

-Regarding to claim 18, Karaoguz et al teaches a router (102) coupled to the processor, the first radio core, the second radio core (see figure 4).

-Regarding to claim 19, Karaoguz et al teaches an engine (102, 90) (see figure 4) of tracking the destination of packets and sending them in parallel through a plurality of separate path ways ((60, 68) and (62, 70)) in a time sharing fashion (see figures 3).

-Claim 20 is rejected with similar reasons set forth for claim 10.

-Regarding to claim 21, as similarly applied to claims 1, 2, 7, 9 and 10, see figures 2-4, and sections [0012], [0038] to [0049], Karaoguz et al discloses a method comprising:

procedures (60, 62, 68, 70) of communicating data packets via a wireless air medium, (which can be a cellular radio medium), using a multimode wireless integrated circuit including a first radio core (68), (which can be configured as a cellular radio core), a second radio core (70), (which can be configured as a

short range wireless transceiver core, and a digital processor core (60, 62) (considered here equivalent with the limitation "processor core"): and

procedure (64) (see figure 3) of communicating at least some of the data packets in parallel via the wireless air medium, (which can be a short range wireless medium for communications) using two channels (60, 68) and (62, 70) of the multimode wireless integrated circuit in a time sharing fashion (see [0041-0043]); and also, the procedure (64) capable of communicating at least some of the data packets in parallel via the wireless air medium using subchannels (42, 44) of either one of the two channels (60, 68) and (62, 70) (see figure 2, [0038-0040]).

Karaoguz et al does not disclose whether the first radio core, the second radio core and the digital processor core are integrated on the same substrate.

Wong teaches that radio frequency devices and digital devices can be all on the same substrate using CMOS fabrication process (see ABSTRACT).

Therefore, for an application, it would have been obvious for a person skilled in the art, when building Karaoguz et al invention, to integrate the first radio core, the second radio core and the digital processor core on the same

substrate, as taught by Wong, so that the fabrication/manufacture cost of the system would be reduced (see Wong, col. 1, lines 47).

-Regarding to claim 23, Karaoguz et al teaches procedures of primarily communicating the data packets via one of the first radio core and the second radio core, as a primary communication channel (see [0048]) and periodically communicating the data (f(k), f(k+1)) via the other of the first radio core and the second radio core as a secondary communication channel during an inquiry scan procedure (see figure 7, and [0064, 0065]).

-Regarding to claim 24, Karaoguz et al teaches that the method can be configured for communicating data packets via the short-range wireless medium while in a local area network and communicating data packets via the cellular radio medium while outside the local area network (see Karaoguz et al, figure 1 and [0034-0037]).

-Regarding claim 25, Karaoguz et al in view of Wong teaches that the method can be configured for powering down the short-range wireless transceiver core while communicating data packets via the cellular radio medium (see Karaoguz et al, [0063]).

-Regarding claim 26, Karaoguz et al in view of Wong teaches that the method can be configured for searching for a short-range wireless medium signal (A) during a time interval of the cellular radio core (see Karaoguz et al, figures 1 and 7, and [0048, 0064, 0065]).

-Regarding claim 27, Karaoguz et al in view of Wong teaches does not teach transmitting a deregistration message to a cellular system if the short-range wireless medium signal is found. However, Karaoguz et al teaches that the multi-mode wireless integrated circuit can be configured to communicate with a cellular system during the multi-mode wireless integrated circuit being within a communication range (20) of the cellular system (26) (see figure 1) and during the cellular system being selected by the procedure (64) for communication (see figure 3), and can be configured to search and detect for the short-range wireless medium signal of a short-range wireless network (28) (see figure 1) when the multi-mode wireless integrated circuit is within the communication range (22) of the short-range wireless network (see also figure 7). In the case that the multi-mode wireless integrated circuit is located in an area which is common to both the communication ranges (20) and (22) (see

figure 1) and that the cellular system are concurrently being selected by the procedure (64) for communication, it would have been obvious for a person skilled in the art to implement the multi-mode wireless integrated circuit to be able to transmit any data or message to the cellular system, (the data or message being considered here equivalent with the limitation "deregistration message"), if the short-range wireless medium signal is found as long as the cellular system are still concurrently selected by the procedure (64) for communication (since the multi-mode wireless integrated circuit is capable to do so) so that the data or message would be indications of a continuity of communication with the cellular system or a discontinuity going-to-be with the cellular system.

Response to Arguments

4. Applicant's arguments filed on 2/13/06 have been fully considered but they are not persuasive.

The applicant mainly argues that (i) with respect to claim 1, neither of Karaoguz et al and Wong teaches or suggests a router configured to transmit data packets in parallel via a cellular radio core and a short range transceiver

core; (ii) with respect to claim 11, neither of Karaoguz et al and Wong teaches or suggests an integrated circuit including a reconfigurable processor core including multiple programmable processors and multiple dedicated processors; and (iii) with respect to claim 21, neither of Karaoguz et al and Wong teaches or suggests communicating at least some data packets in parallel via a cellular radio medium and a short-range wireless medium.

The examiner respect fully disagrees. Note that the rejections are made based on the limitations given in the claim. And, they are explained as following:

-Regarding to part (i), Karaoguz et al teaches a router (64), as claimed, which transmits data packets in parallel via first radio core (68), (configurable as a cellular radio), and a second radio core (70), (configurable as transceiver core) in a time sharing fashion (see figure 4, and [0041-0043]). Further, claim 1 does not recite other limitation(s) to make the claimed router distinguishable from Karaoguz et al router.

-Regarding to part (ii), Karaoguz et al teaches an integrated circuit, as claimed, which includes a reconfigurable processor core (134, 136, 142, 138,

140) (see figure 6) including multiple programmable processors (142, 134, 136) and multiple dedicated processors ((138, 140), (see [0071]). Further, claim 11 does not recite other limitation(s) to make the claimed integrated circuit distinguishable from Karaoguz et al integrated circuit.

-Regarding to part (iii), Karaoguz et al teaches a procedure (64) (see figure 3), as claimed, wherein the procedure is capable of communicating at least some data packets in parallel via a wireless air medium, which can be used as a cellular radio medium and a short-range wireless medium for communications, by using two channels (60, 68) and (62, 70) of a multimode wireless integrated circuit in a time sharing fashion (see [0041-0043]); and also, the procedure (64) capable of communicating at least some of the data packets in parallel via the wireless air medium by using subchannels (42, 44) of either one of the two channels (60, 68) and (62, 70) (see figure 2, [0038-0040]).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanh D. Phu whose telephone number is (571)272-7857. The examiner can normally be reached on M-Th from 7:00-17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on (571) 272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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